The University of Mississippi

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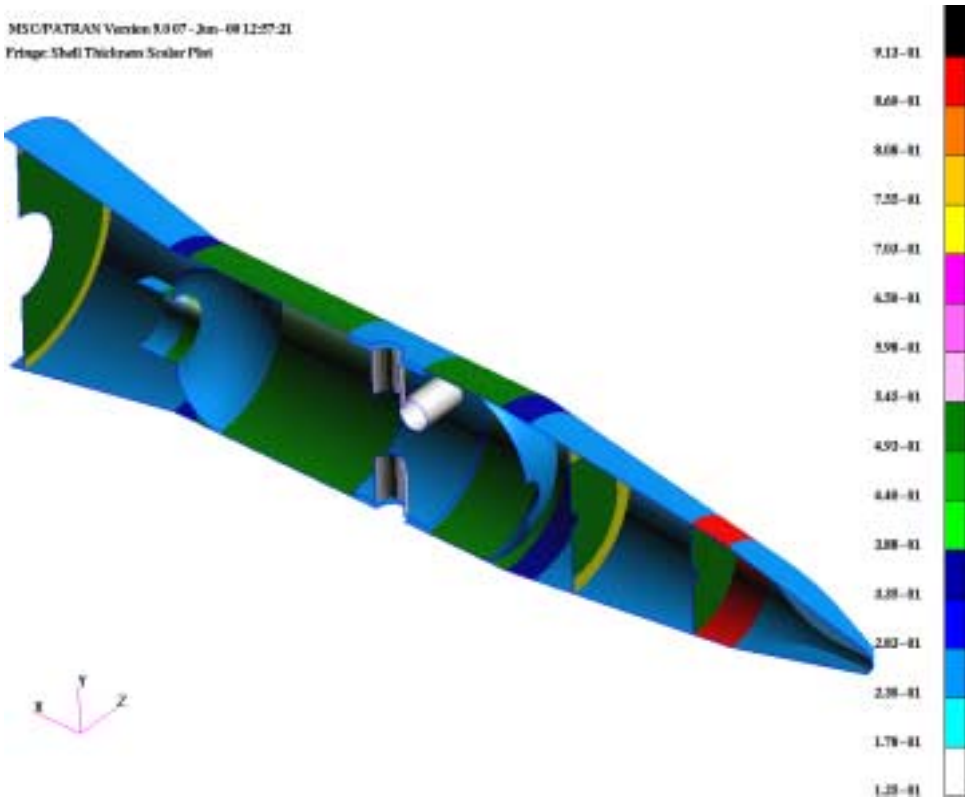
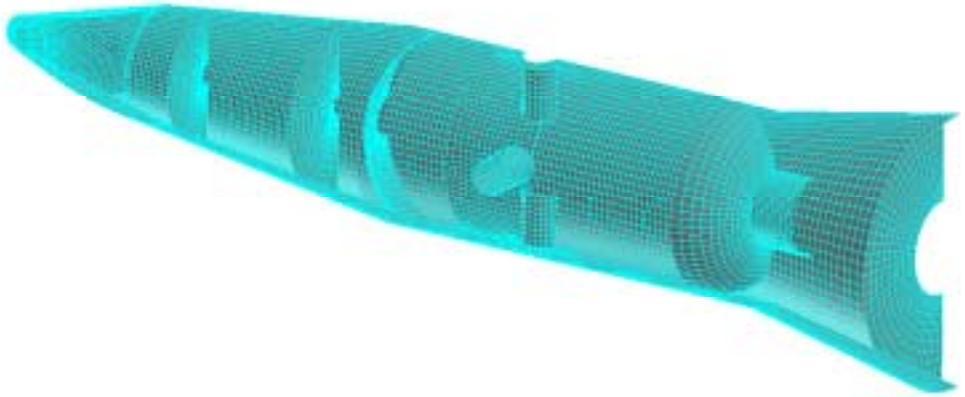
CRAFTech, CALSPAN at The University of Buffalo, and The University of Mississippi, conducted a numerical/experimental study on interceptor missile vibrations with side steering control jets. The predictions were found to be consistent with prior data on maneuvering reentry vehicles. This technology is applicable to the NASA program on Reusable Launch Vehicles, where sensitive payloads and vehicle performance must be optimized.

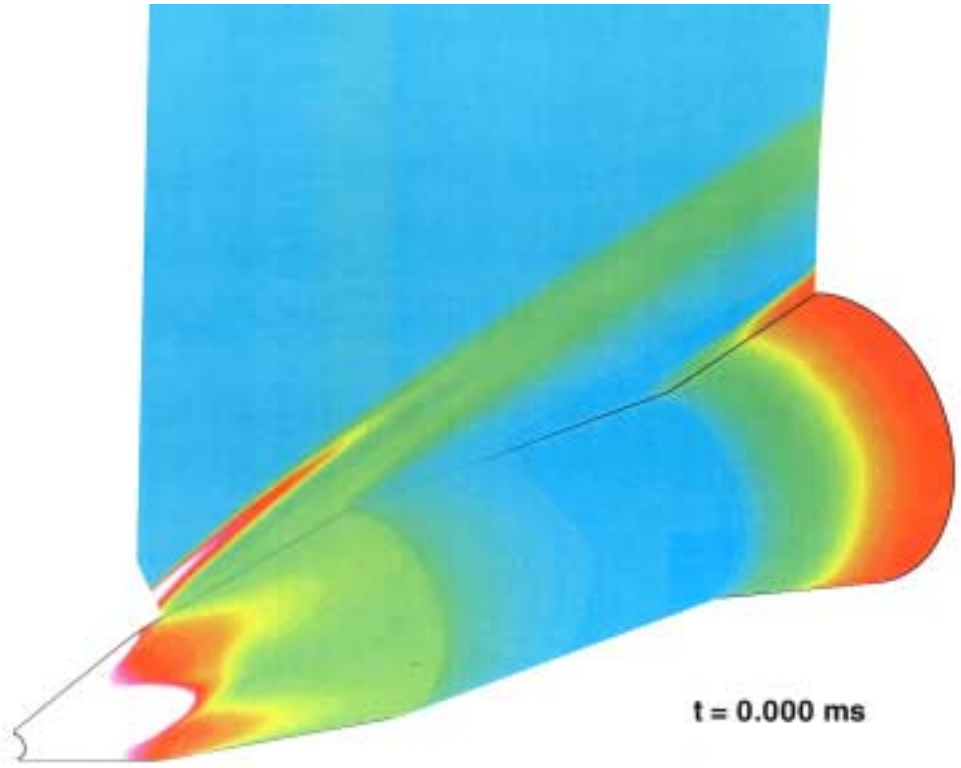
Atmospheric Interceptor Vehicle with Solid Propellant Divert Attitude Control System.



Solid Model for FEM Analysis

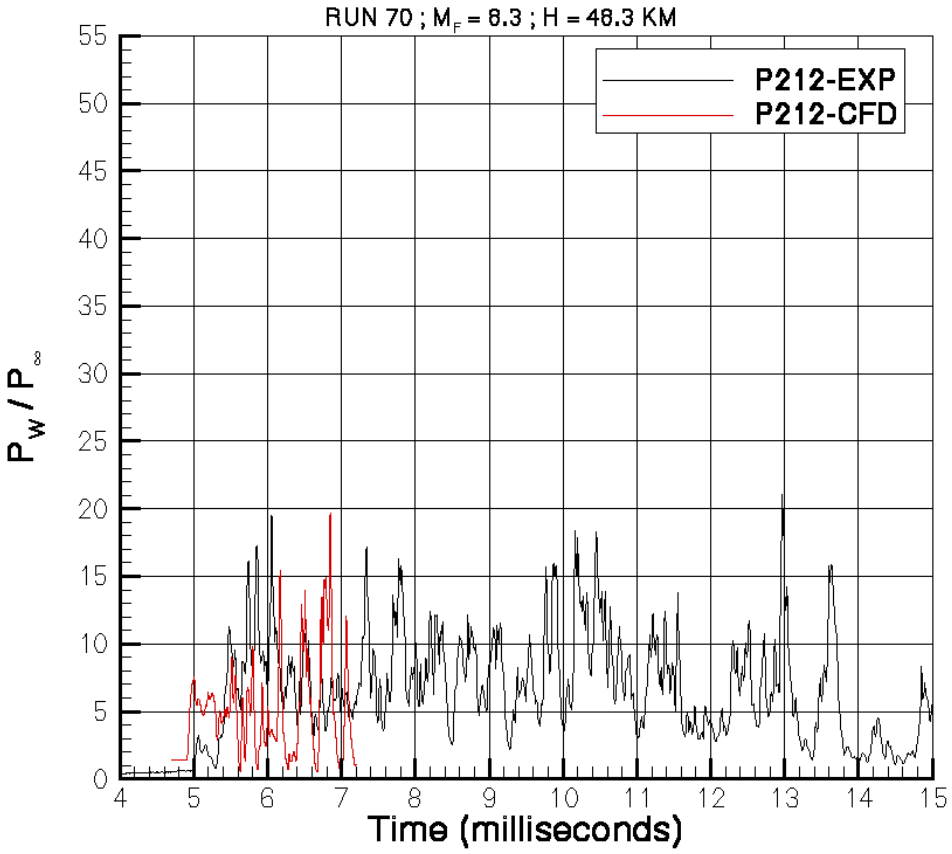


FEM mesh.

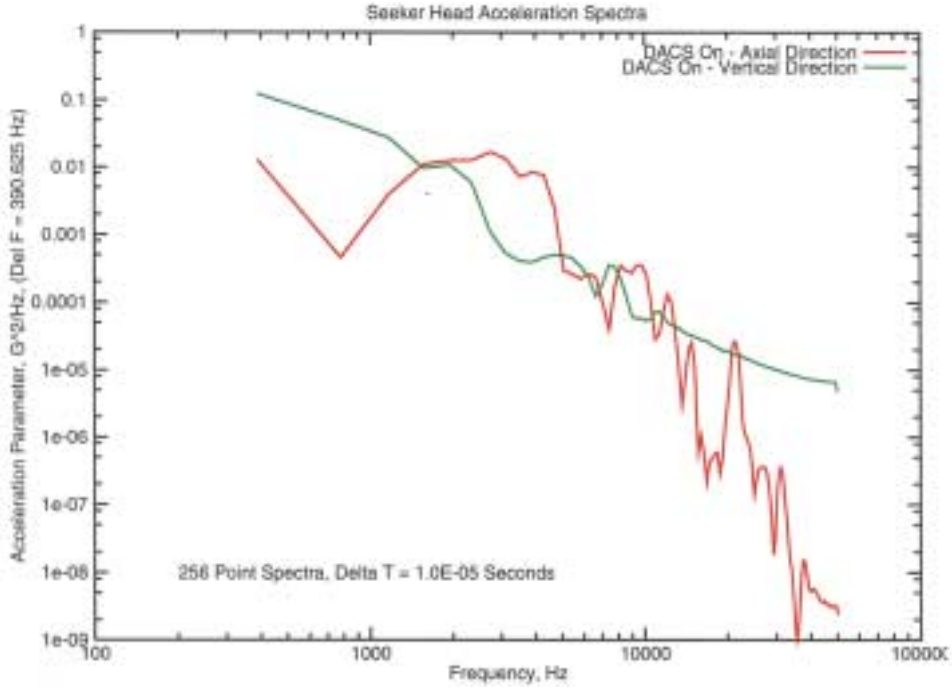


Predicted surface pressures before ignition of control jet.

AIT Vehicle in LENS facility.



Predicted and measured dynamic surface pressure.



Predicted seeker head acceleration spectra.